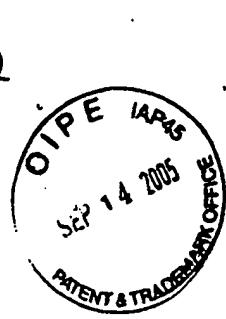


Substitute
Spec. OK
for
entry
10/12/2005



METHOD AND DEVICE FOR FORMING A PIPE

BACKGROUND OF THE INVENTION

[0001] This invention relates to a method and a device for forming a pipe in which a plate with holes is formed into a completely circular pipe by use of a bending machine.

[0002] A method of forming a completely circular pipe by bending a steel plate by use of a bending machine has heretofore been performed with a bending machine in which one upper roll is vertically and horizontally movably arranged over two lower rolls arranged parallel to one another. A pipe forming method disclosed in JP patent publication 63-36852 is one example. This prior method comprises a preparatory step of bending a central portion, a main step and a step of bending both ends of a plate.

[0003] In the preparatory step of bending the central portion of the plate, the upper roll is lowered offset relative to the two lower rolls to a position where frictional force necessary for feed of the plate is obtained. Thereafter, the upper roll is further lowered while pressing and bending the plate for rolling the plate until a predetermined arc necessary for the main step is obtained. After performing the main step in which rolling is further performed with the predetermined arc, the both end bending step is performed in which pressing/bending is applied to both ends of the plate.

[0004] With this bending method, it is possible to bend a steel plate into a U-shape using part of its working steps. One example of such a method is proposed in JP patent publication 2000-288635. In this U-bending method, after moving a